

The impact of a culturally tailored telehealth education programme on glycemic control and self-care behaviours in Jordanian adults with type 2 diabetes

Submission date 06/02/2026	Recruitment status No longer recruiting	<input type="checkbox"/> Prospectively registered
Registration date 09/02/2026	Overall study status Completed	<input type="checkbox"/> Protocol
Last Edited 09/02/2026	Condition category Nutritional, Metabolic, Endocrine	<input type="checkbox"/> Statistical analysis plan
		<input type="checkbox"/> Results
		<input type="checkbox"/> Individual participant data
		<input checked="" type="checkbox"/> Record updated in last year

Plain English summary of protocol

Plain English summary of protocol not provided at time of registration

Contact information

Type(s)

Public, Scientific, Principal investigator

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Study information

Scientific Title

The impact of a culturally tailored telehealth education programme on glycemic control and self-care behaviours in Jordanian adults with type 2 diabetes: a randomised controlled trial

Study objectives

The present study aimed to assess the impact of a culturally tailored telehealth education programme on glycemic control and self-care behaviours among Jordanian adults with T2DM. We hypothesised that participants in the intervention group would demonstrate a greater reduction in HbA1c and greater improvements in self-care behaviours, diabetes knowledge, medication adherence, and diabetes fatalism, and report high satisfaction with the intervention, in comparison to individuals receiving usual care.

Ethics approval required

Ethics approval required

Ethics approval(s)

Approved 11/11/2024, University of Petra (17 Queen Alia Airport Rd, Amman, 11196, Jordan; +962; uopec@uop.edu.jo), ref: S/12/12/2024

Primary study design

Interventional

Allocation

Randomized controlled trial

Masking

Blinded (masking used)

Control

Active

Assignment

Parallel

Purpose

Supportive care

Study type(s)

Health condition(s) or problem(s) studied

The impact of a culturally tailored telehealth education programme on glycemic control and self-care behaviours among Jordanian adults with T2DM.

Interventions

Following written informed consent, participants were randomized in a 1:1 ratio to either the intervention or control group. A computer-generated block randomization sequence, stratified by clinic site, was used to ensure balanced treatment allocation. Allocation was concealed from the recruitment team using a closed opaque envelope system with trailing individually numbered envelopes. Due to the behavioral aspects of the treatment, participant and diabetes educator blinding was not possible, but the outcome assessors and data analyst were blinded.

The intervention involved a six-month comprehensive intervention based on Social Cognitive Theory principles, to enhance self-efficacy through education and goal setting. The cultural

adaptation of the intervention was conducted through multiple phases. The panel consisted of a certified Diabetes Educator, a dietitian, and patient representatives who collaborated with regard to developing patient education.

Intervention Group: The intervention group received the culturally adapted tele-health intervention programme conducted completely in Arabic. The programme was designed to be low-burden and flexible, consisting of:

- WhatsApp Broadcasts: The content covered core DSME topics (e.g., diet, exercise, medication management, self-monitoring, and problem-solving).
- Individual Teleconsultations: Each participant had three scheduled 15-minute phone calls with a certified diabetes educator (at the study's start, and at 3 and 6 months).

Control Group

Participants in the control group continued to receive standard care (usual care) from their endocrinologists and the clinic staff at the participating hospital in Amman, Jordan.

- Procedures: This standard care typically included routine outpatient clinic visits scheduled every 3 to 6 months. During these visits, they received standard medical management and advice as per routine clinical practice.
- Exclusion: Participants in the control group were not exposed to any components of the telehealth programme (WhatsApp broadcasts or telephonic coaching) provided to the intervention group.

Intervention Type

Other

Primary outcome(s)

1. glycemic control and self-care behaviours measured using % at HbA1c

Key secondary outcome(s)

Completion date

31/07/2025

Eligibility

Key inclusion criteria

1. Adults aged 18 years or older
2. A clinical diagnosis of Type 2 Diabetes Mellitus (T2DM) for at least one year
3. A baseline HbA1c between 7.5% and 11.0%
4. Ownership of a smartphone with the WhatsApp application
5. The ability to read Arabic

Healthy volunteers allowed

No

Age group

Mixed

Lower age limit

18 Years

Upper age limit

100 Years

Sex

All

Total final enrolment

92

Key exclusion criteria

1. Type 1 diabetes
2. Pregnancy or lactation
3. Severe diabetes-related complications (e.g., end-stage renal disease)
4. A cognitive impairment that would preclude meaningful participation

Date of first enrolment

01/01/2025

Date of final enrolment

31/01/2025

Locations**Countries of recruitment**

Jordan

Sponsor information**Organisation**

Petra University

ROR

<https://ror.org/039d9es10>

Funder(s)**Funder type****Funder Name**

Investigator initiated and funded

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary

Not expected to be made available